# The Water Connection
## February 1999

## ON THE WATER FRONT

*Tucson Water and its customers received good news last month. If you're changing to a new kind of water in order to solve community problems, wouldn't it be best to change to a water that you may like better than what you receive now? We can do just that. In Tucson Water's customer water preference workshops nearly 80% of the customers liked a blend of recharged Colorado River water and groundwater. That's a higher rating than the groundwater we use today.*

*In a few months, volunteer neighborhoods will use this blended water in special 90-day demonstrations to show that it can successfully replace the groundwater we are now using. Since Colorado River water is a renewable water source we can use this blended water and shut down many of the groundwater wells in Tucson which are damaging our environment. Then our water table can begin to recover, naturally.*

*We're very fortunate to be able to replace our dwindling groundwater with a type of water that we'll enjoy even more. We can all be pleased and confident that, working together, we will solve our water issues and maintain our community and our environment for future generations.*

*David Modeer*
*Director, Tucson Water*

### WORKSHOP RESULTS RELEASED

## CUSTOMERS PREFER BLEND OF RECHARGED COLORADO RIVER WATER AND GROUNDWATER

That's the report from a recent series of water preference workshops conducted with 100 Tucson Water customers by the internationally respected product testing firm of Arthur D. Little and Company. The blend, 70% groundwater and 30% recharged Colorado River water, will be used later this spring for water demonstrations in local volunteer neighborhoods. "We've found a blend that our customers rate more highly than groundwater," said Tucson Water Director Dave Modeer. "Now we'll show that it can be used successfully in our homes and businesses."

## Protecting Our Environment

Pumping 32 billion gallons of water each year from the ground is damaging our environment. Our water table is dropping 2 to 3 feet per year and, if we continue, our few remaining riparian areas will disappear. We will also have problems with subsidence - when the land surface sinks causing cracked building foundations, broken utility pipes, and other damage. Once subsidence happens, it can't be reversed. No amount of water soaking into the ground can cause the land to rise again. Tucson Water is working to provide water from other resources so that we can turn off many of these groundwater wells and allow the water table to recover naturally through rain and water run-off.

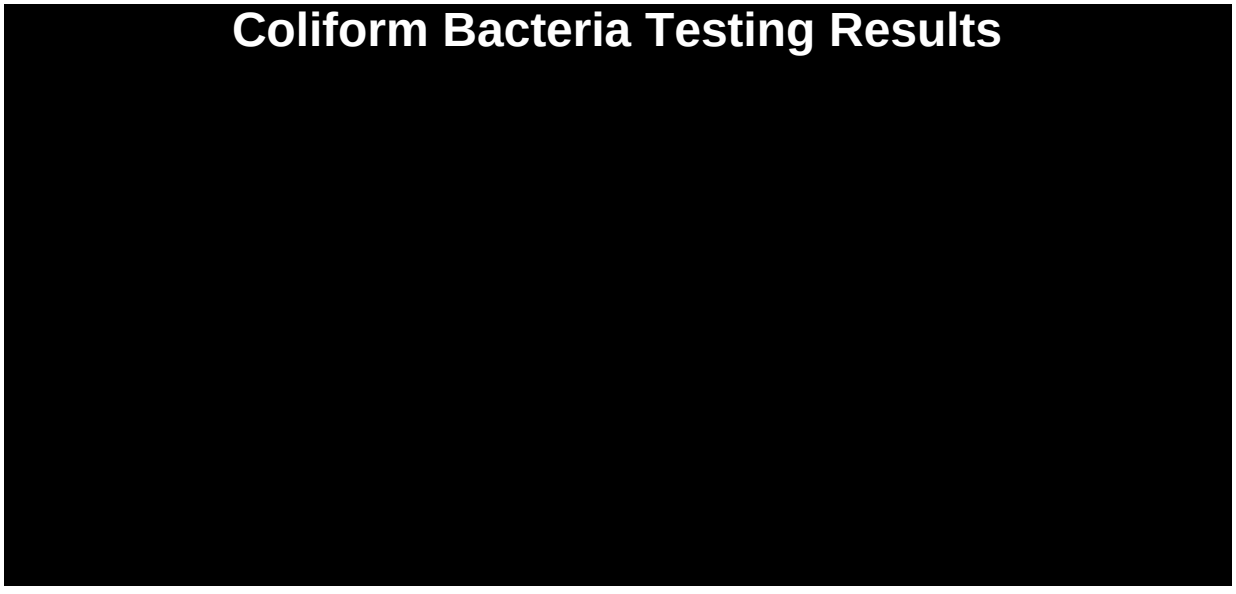
## Volunteers Line Up To Try The New Tucson Water

**Why would Tucson Water customers and neighborhood associations around Tucson volunteer to try a different kind of water for 90 days?** Lifelong Tucsonan Shirley Davis says it's because she loves our community and knows our continued overuse of groundwater threatens our future. Shirley is one of more than 100 Tucson Water customers who have volunteered to participate in the utility's Ambassador Neighborhoods Program scheduled to begin in June.

At least four neighborhoods of 10 to 20 homes each will receive a blend of recharged Colorado River water and groundwater for a 3-month period. During this time, Tucson Water professionals will work closely with them to answer questions, monitor their water quality and demonstrate that the blended water is acceptable for all uses in their homes. In addition to excellent quality water, these volunteers will probably receive an incentive during the course of the 90-day demonstration, such as $1 per month water bills.

Right now, Tucson Water is looking more closely at each of the volunteer neighborhoods to determine which ones best represent all of Tucson. For more information about this project that is so very critical to the future of our community, watch television, check newspapers and future water bills. If you have any questions or would like to volunteer to participate, please call Tucson Water at 791-4331.

## Coliform Bacteria Testing Results



*Click this box to see the graphic representation of the November 1998 Groundwater Quality Report. (When you are finished there, you will need to use your browser's BACK button to return to this page)*

To give you a more accurate measurement of the water quality in your neighborhood, the Tucson Water service area has been divided into 10 zones based on differences in water pressure and water quality. For a detailed description of the zone boundaries, call 791-4331.

*One part per million (ppm) is the same as one second of time in 11.6 days.*

for microorganisms. Tucson Water adds a sufficient level of chlorine to keep the groundwater we use safe for drinking, cooking and bathing.

**What's a coliform, anyway?**

Coliforms are bacteria which are not harmful themselves but may indicate the presence of other, potentially harmful bacteria.

**Why should the chlorine level in my water matter to me?**

Chlorine kills bacteria and germs that can grow in drinking water and prevents waterborne disease. Chlorine is the most widely used water disinfectant in North America. Tucson Water continually tests water at more than 240 locations to make sure chlorine levels stay within the target range.

# Groundwater Quality Report

## November 1998

| Water Quality Zone | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | System Wide |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sodium | Average | 49 | 44 | 51 | 36 | 32 | 31 | 28 | 42 | 47 | 39 | 39 |
| (ppm) | *Range* | *34-55* | *30-52* | *19-101* | *26-53* | *23-45* | *22-38* | *20-37* | *37-56* | *37-85* | *37-41* | *19-101* |
| Mineral Content | Average | 392 | 306 | 339 | 236 | 223 | 227 | 220 | 332 | 275 | 217 | 269 |
| (ppm) | *Range* | *344-475* | *220-353* | *191-618* | *189-310* | *159-320* | *164-291* | *157-301* | *234-477* | *210-361* | *210-225* | *157-618* |
| Hardness | Average | 165 | 135 | 146 | 101 | 98 | 103 | 102 | 165 | 110 | 76 | 118 |
| (ppm) | *Range* | *73-229* | *91-158* | *68-314* | *74-136* | *66-135* | *72-160* | *70-156* | *92-278* | *73-216* | *73-92* | *66-314* |
| pH | Average | 7.7 | 8.0 | 7.8 | 7.9 | 7.8 | 7.8 | 7.9 | 7.7 | 7.9 | 8.0 | 7.8 |
| (units) | *Range* | *7.1-8.4* | *7.8-8.2* | *7.2-8.2* | *7.3-8.3* | *7.0-8.3* | *7.3-8.3* | *7.4-8.2* | *7.3-8.1* | *7.5-8.3* | *7.8-8.2* | *7.0-8.4* |
| Temperature | Average | 77 | 75 | 76 | 76 | 75 | 74 | 75 | 77 | 78 | 79 | 76 |
| (deg F) | *Range* | *73-81* | *70-81* | *68-84* | *71-86* | *64-86* | *64-79* | *68-82* | *72-84* | *73-86* | *70-86* | *64-86* |

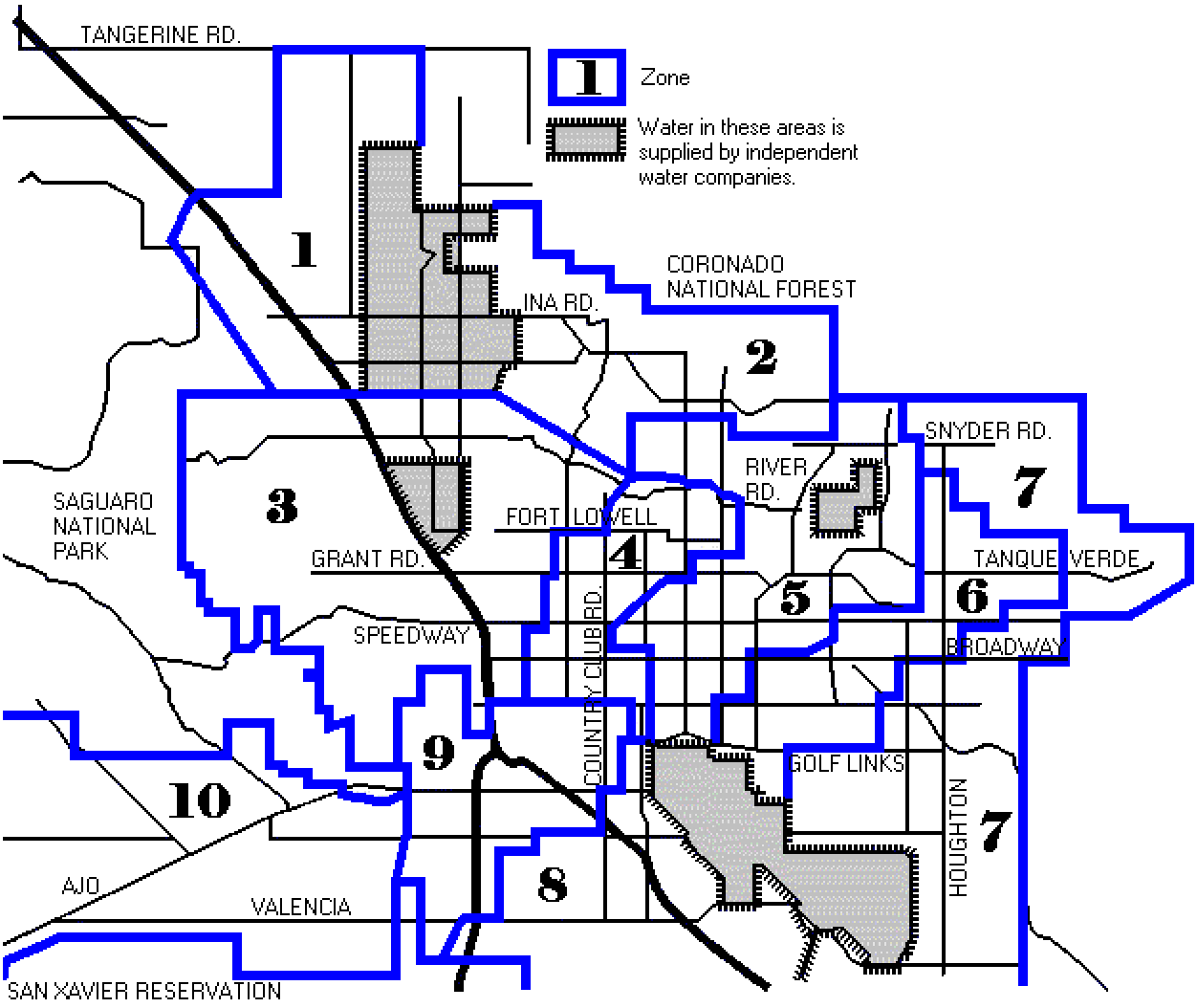
# What does all this mean to me?

**Sodium.** The American Heart Association recommended standard for daily sodium intake is 3,000 milligrams. In general, the amount of sodium ingested from drinking water is a small part of a person's overall dietary intake. People on severely restricted sodium diets may want to consult their health care provider about sodium levels in their water.

**Mineral content** measures the amount of total dissolved solids, or **TDS**, in the water. Mineral content can often affect the taste of the water. For example, many people can detect a salty taste when TDS is above 500 parts per million. The federal government has recommended an aesthetic standard of 500 ppm or less for mineral content in drinking water.

**Hardness** measures the ease with which soap can be lathered. The softer water is, the more easily it produces a soap lather. Water hardness also determines the degree of water spotting on dishes, plumbing fixtures and bath areas. In addition, most home water conditioners are set based on the hardness of the water entering the home. For the most part, Tucson's groundwater is considered moderately hard.

**pH**. Swimming pool chemistry, some fish aquariums and ponds, and certain water conditioner systems require you to control the pH of the water. pH is a measurement of acidity. Waters with a pH below 7.0 are considered acidic. The federal secondary, or aesthetic, standard for pH is 6.5 to 8.5.




The information shown on this map was collected at 244 sampling points.

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| TUCSON WATER | ***The Water Connection*** **is produced by Tucson Water. To receive a copy, or to receive this information in Spanish, call 791-4331 or mail your request to:** **Customer Information P.O. Box 27210 Tucson, AZ 85726-7210** | **City of Tucson TTY number: 791-2639** **Si usted desea este documento escrito en español, por favor, llame al 791-4331.** |